AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A fastener system for fastening a vacuum pump (1) to a wall (2) of a stationary structure (3) having tapped holes (15) provided in the wall (2) of the stationary structure (3), said fastener system comprising:

an annular flange (14) configured to be provided on a body of the vacuum pump and around a suction orifice (6) such that the flange (14) is coaxial with respect to a center axis of the suction orifice (6);

through holes (16) provided in the annular flange (14); and

screws (17) having heads (18), wherein the screws are fitted so that ~~their~~ shanks (19) of screws (17) pass through the through holes (16) and are to be screwed into corresponding ones of the tapped holes (15) in order to secure the vacuum pump (1) to the stationary structure (3) while pressing the flange (14) against the wall (2) of the stationary structure (3); and

wherein each through hole (16) comprises a distal segment (16a) that is cylindrical about a first axis followed by an enlarged proximal segment (16b) that is cylindrical about the ~~same~~ first axis; ~~and~~

wherein said shank passes through said distal segment first, and then passes through said proximal ~~segment,~~segment; and

wherein the shank is configured to bend and the proximal segment of each through hole is of a length greater than the length of the distal segment of each through hole, such that the through holes are configured to offset laterally in response to ~~so that when fastened to the wall of the stationary structure, in the event of~~ shear forces (20, 21) being applied in any lateral direction in a connection zone between the vacuum pump (1) and the stationary structure (3)~~, the shank (19) of the screw bends and the through hole (16) is offset laterally (D)~~.

2. (currently amended): A system according to claim 1, wherein the proximal segment (16b) of the through ~~hole~~holes (16) allows a maximum lateral offset (D) ~~between the through hole (16) and the corresponding tapped hole~~ that is greater than the radius of the screw shank (19), such that during bending of the screw shank (19), the screw shank comes into abutment against the side wall (16c) of the proximal segment (16b) of the through hole (16)~~; and~~

~~the proximal segment (16b) of the through hole (16) is of a length (Lb) greater than the length (La) of the distal segment (16a) of the through hole (16)~~.

3. (currently amended): A system according to claim 1, characterized in that the proximal segment (16b) of the through ~~hole~~ holes (16) includes a cylindrical proximal portion (116b) that is connected to the distal segment (16a) of the through ~~hole~~ holes (16) by a circularly frustoconical distal portion (216b).

4. (original): A system according to claim 3, characterized in that the frustoconical distal portion (216b) has a cone half-angle equal to about 60°.

5. (currently amended): A system according to claim 1, characterized in that the screw shank (19) comprises, adjacent to the head (18), a smooth shank segment (19a) of diameter (Dt) that is considerably smaller than the diameter (Da) of the distal segment (16a) of the through ~~hole~~ holes (16), and that is followed to a free end (19c) by a threaded segment (19b) shaped to screw into the associated tapped holes~~hole~~ (15) in the wall (2).

6. (currently amended): A system according to claim 5, characterized in that the diameter (Dt) of the smooth shank segment (19a) is less than or equal to 80% of the diameter (Da) of the distal segment (16a) of the through holes~~hole~~ (16).

7. (currently amended): A system according to claim 5, characterized in that the proximal segment (16b) of the through holes~~hole~~ (16) is of a length (Lb) greater than or equal to 1.5 times the length (La) of the distal segment (16a) of the through holes~~hole~~ (16).

8. (previously presented): A system according to claim 1, characterized in that a washer (22) is interposed between the head (18) of the screw (17) and an adjacent outside face (14a) of the flange (14).

9. (currently amended): A system according to claim 1, characterized in that an elastomer damper material is inserted in the space between the shank (19) of the screw and the corresponding through holes~~hole~~ (16) of the flange (14).

10. (withdrawn): A vacuum pump (1), comprising:

a pump body in which a rotor is rotatable;

an annular flange provided on the pump body and configure to be placed around a suction orifice of a corresponding stationary structure;

through holes in the annular flange; and

screws having heads fitted so that their shanks can pass through respective ones of the through holes and screwed into the stationary structure; and

wherein each through hole comprises a distal segment that is cylindrical followed by an enlarged proximal segment that is cylindrical about the same axis, the enlarged proximal segment positioned to be adjacent to the stationary structure for fastening the vacuum pump to the stationary structure.

11. (currently amended): A fastener system for fastening a vacuum pump, the fastener system comprising:

a screw comprising a head and a shank;

an annular flange comprising a through hole, wherein the through hole comprises a distal segment and a proximal segment; and

a stationary structure having a hole for receiving the screw; and

wherein a cross-sectional area of the distal segment taken in a direction perpendicular to a central axis of the through hole is smaller than a cross-sectional area of the proximal segment taken in a direction perpendicular to ~~a central~~the central axis of the through hole, and such that, ~~when~~ the screw is inserted into the through hole with the proximal segment closest to the stationary structure relative to the distal segment and secured to the stationary structure, the proximal segment provides a gap in which the shank ~~bends~~ is bendable without breaking while maintaining the ~~vacuum pump~~flange fastened to the stationary structure; and

wherein the proximal segment has an opening ~~abutting~~ directly adjacent to the hole in the stationary structure that is sized differently from a portion of the hole in the stationary structure that ~~abuts~~ is directly adjacent to the opening in the proximal segment.

12. (currently amended): The fastener system according to claim 11, wherein the opening of the proximal segment directly adjacent to the hole in the stationary structure~~has an opening that~~ is larger than the hole in the stationary structure.

13. (currently amended): The fastener system according to claim 11, wherein a distance measured in a radial direction of the through hole between an inside wall of the

proximal segment and an opposing outside surface of the screw shank ~~when the screw is fully inserted in the through hole~~ is greater than a radius of the screw shank.

14. (previously presented): The fastener system according to claim 11, wherein the proximal segment of the through hole is of a length greater than a total length of the distal segment of the through hole.

15. (previously presented): The fastener system according to claim 11, wherein the shank comprises, adjacent to the head, a smooth shank segment of a diameter that is substantially smaller than a diameter of the distal segment of the through hole, and that is followed to a free end by a threaded segment shaped to screw into the hole in the stationary structure.

16. (previously presented): The fastener system according to claim 15, wherein the diameter of the smooth shank segment is less than or equal to 80% of the diameter of the distal segment of the through hole.

17. (previously presented): The fastener system according to claim 15, wherein the proximal segment is of a length greater than or equal to 1.5 times a length of the distal segment.

18. (canceled).

19. (new): A method for fastening a vacuum pump to a wall of a stationary structure having tapped holes provided in the wall of the stationary structure, the method comprising:

arranging an annular flange on a body of the vacuum pump and around a suction orifice such that the flange is coaxial with respect to a center axis of the suction orifice;

securing the vacuum pump to the stationary structure by inserting screws into through holes in the flange and corresponding ones of the tapped holes such that a shank of each screw passes through a distal segment of one of the through holes first, and then passes through an enlarged proximal segment of one of the through holes; and

in response to shear forces applied in any lateral direction in a connection zone between the vacuum pump and the stationary structure, bending the shank and laterally offsetting the through holes.

20. (new): The method of claim 19, wherein the shank bends without breaking while maintaining the vacuum pump secured to the stationary structure;

and the arranging step comprises arranging the flange such that the proximal segment of a through hole has an opening directly adjacent to one of the tapped holes that is sized differently from a portion of the tapped hole that is directly adjacent to the opening of the proximal segment.